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DICTIONARY FILE UPDATES: 14 JUL 2008 HIGHEST RN 1034013-75-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

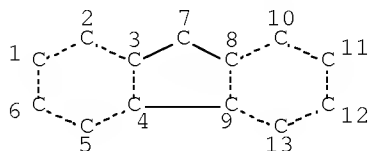
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<http://www.cas.org/support/stngen/stdoc/properties.html>

=> d sta que l38

L32 STR



NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

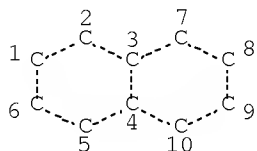
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STEREO ATTRIBUTES: NONE

L33 SCR 2043

L35 11796 SEA FILE=REGISTRY SSS FUL L32 AND L33

L36 STR



NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

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STEREO ATTRIBUTES: NONE

L38 944 SEA FILE=REGISTRY SUB=L35 SSS FUL L36

100.0% PROCESSED 1082 ITERATIONS

944 ANSWERS

SEARCH TIME: 00.00.01

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 10:29:59 ON 15 JUL 2008

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FILE COVERS 1907 - 15 Jul 2008 VOL 149 ISS 3

FILE LAST UPDATED: 14 Jul 2008 (20080714/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 174 bib abs hitstr retable tot

L74 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2007:1064239 HCAPLUS Full-text

DN 147:365949

TI Method for production of high molecular weight conjugated polymers

IN Oda, Seiji; Kamikawa, Takashi

PA Sumitomo Chemical Company, Limited, Japan

SO PCT Int. Appl., 49pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2007105807	A1	20070920	WO 2007-JP55311	20070309
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,			

GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP,
 KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW,
 MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU,
 SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA,
 UG, US, UZ, VC, VN, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
 GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM

JP 2007277534 A 20071025 JP 2007-61427 20070312

PRAI JP 2006-67125 A 20060313

OS MARPAT 147:365949

AB Title conjugated polymers are prepared by (A) contacting an aromatic monomer having ≥ 2 boron-containing functional groups with an aromatic monomer having ≥ 2 reactive functional group or (B) contacting aromatic monomers each having ≥ 1 boron-containing functional group and ≥ 1 reactive functional group with each other, both in an ether solvent in the presence of a palladium catalyst having a phosphine compound coordinated to palladium, cesium carbonate and 1-100 mol of water relative to 1 mol of the boron-containing functional group in the aromatic monomer. Thus, 2,2-(9,9-dioctyl-9H-fluorene-2,7-diyl)bis(1,3,2-dioxaborolane) 106, 2,7-dibromo-9,9-didodecyl-9H-fluorene 132, tris(dibenzylideneacetone) dipalladium 4.6, tricyclohexylphosphine 5.6, and cesium carbonate 391 mg, and 2.99 mL THF and 0.01 mL water were refluxed for 6 h to give a copolymer with Mw 326,000 and Mn 131,000.

IT 210347-53-8P 210347-54-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of high mol. weight conjugated polymers)

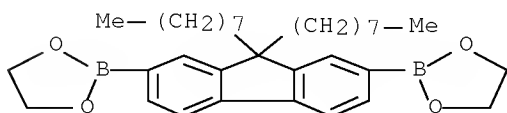
RN 210347-53-8 HCAPLUS

CN 1,3,2-Dioxaborolane, 2,2'-(9,9-dioctyl-9H-fluorene-2,7-diyl)bis-, polymer with 1,4-dibromonaphthalene (CA INDEX NAME)

CM 1

CRN 210347-49-2

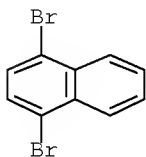
CMF C33 H48 B2 O4



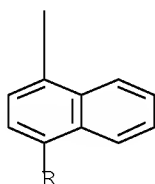
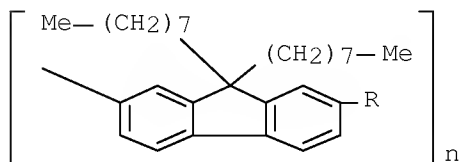
CM 2

CRN 83-53-4

CMF C10 H6 Br2



RN 210347-54-9 HCAPLUS
 CN Poly[(9,9-dioctyl-9H-fluorene-2,7-diyl)-1,4-naphthalenediyl] (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Japan Science And Techn	2004			JP 2004256718 A	HCAPLUS
Jsr Corp	2005			EP 1469057 A2	HCAPLUS
Jsr Corp	2005			US 2004202892 A1	
Jsr Corp	2005			JP 2005171053 A	HCAPLUS
Jsr Corp	2006			JP 2006352069 A	HCAPLUS
Sumitomo Chemical Co Lt	2007			JP 200723252 A	

L74 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2003:381734 HCAPLUS Full-text

DN 138:354385

TI Tuning HOMO and LUMO energy levels of blue light-emitting polyfluorene derivatives

AU Liu, Bin; Yu, Wang-Lin; Pei, Jian; Lai, Yee-Hing; Huang, Wei

CS Dep. of Chem., Natl. Univ. of Singapore, Singapore, 117543, Singapore

SO Polymeric Materials Science and Engineering (2001), 84, 1041-1042

CODEN: PMSEDG; ISSN: 0743-0515

PB American Chemical Society

DT Journal

LA English

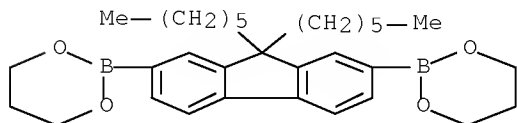
AB Ten polyfluorene copolymers were synthesized by Pd catalyzed Suzuki reactions of fluorene and aryl monomers. The optical, electrochem. and thermal properties of the polymers all exhibited dependence on the changes of main chain structure and side chain groups on the phenylene ring. Through the modification of either main chain or side chains, both the HOMO and LUMO energy levels could be tuned within 0.4 to 0.5 eV for the blue light emitting polymers. Such a wide tuning of MO energy levels in blue light emitting polymers is of interest for use in efficient blue light emitting devices.

IT 353246-75-0P 353246-76-1P

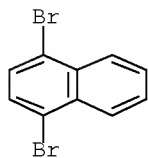
RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)

RN	353246-75-0	HCAPLUS
CN	1,3,2-Dioxaborinane, 2,2'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer with 1,4-dibromonaphthalene (9CI) (CA INDEX NAME)	

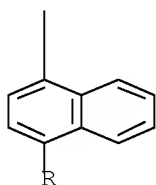
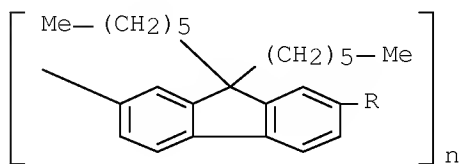
CRN 250597-29-6
CMF C31 H44 B2 O4



CRN 83-53-4
CMF C10 H6 Br2



RN	353246-76-1	HCAPLUS		
CN	Poly[(9,9-dihexyl-9H-fluorene-2,7-diyl)-1,4-naphthalenediyl] (9CI) (CA INDEX NAME)			



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Greenham, N	1995	49	1	Solid State Physics	HCAPLUS
Grice, A	1998	73	629	Appl Phys Lett	HCAPLUS
Janietz, S	1998	73	2453	Appl Phys Lett	HCAPLUS
Klaerner, G	1998	31	2007	Macromolecules	HCAPLUS
Kraft, A	1998	37	402	Angew Chem, Int Ed E	
Moratti, S	1995	71	2117	Synth Met	HCAPLUS
Segura, J	1998	49	319	Acta Polym	HCAPLUS

L74 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2002:849341 HCAPLUS Full-text

DN 137:377516

TI Electroluminescent devices fabricated with encapsulated light emitting polymer particles

IN Murasko, Matthew; Kinlen, Patrick J.; St. John, Brent

PA Lumimove, Inc., USA

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002087308	A2	20021107	WO 2002-US13547	20020430 <--
	WO 2002087308	A3	20030501		
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	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	CA 2473969	A1	20021107	CA 2002-2473969	20020430 <--
	AU 2002259077	A1	20021111	AU 2002-259077	20020430 <--
	US 20030032361	A1	20030213	US 2002-135599	20020430 <--
	US 7001639	B2	20060221		
	US 20060251798	A1	20061109	US 2005-260738	20051027 <--
PRAI	US 2001-287321P	P	20010430	<--	
	US 2001-287612P	P	20010430	<--	
	US 2002-135599	A3	20020430		
	WO 2002-US13547	W	20020430		

AB Methods for fabricating electroluminescent display devices are described which entail encapsulating organic light-emitting material particles with a conductive polymer; formulating an ink by mixing the encapsulated particles with binder polymers; depositing a conducting rear electrode onto a substrate in a pattern; depositing the ink onto rear electrode patterns to form a light-emitting layer; depositing a transparent hole transporting electrode onto the light-emitting layer; depositing a front outlining electrode onto the hole transporting electrode; and depositing connection leads to the rear electrode and the front outlining electrode.

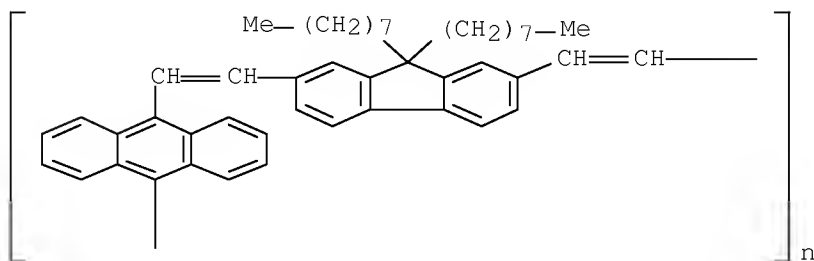
IT 474975-19-4 474975-22-9

RL: DEV (Device component use); USES (Uses)

(electroluminescent display fabrication using polymer-encapsulated light-emitting particles)

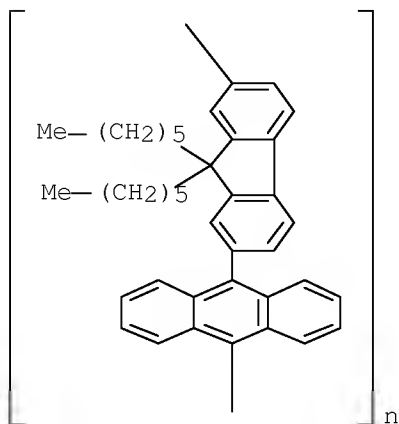
RN 474975-19-4 HCAPLUS

RN Poly[9,10-anthracenediyl-1,2-ethenediyl(9,9-dioctyl-9H-fluorene-2,7-diyl)-
1,2-ethenediyl] (CA INDEX NAME)



RN 474975-22-9 HCAPLUS

CN Poly[9,10-anthracenediyl(9,9-dihexyl-9H-fluorene-2,7-diyl)] (CA INDEX NAME)



L74 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2002:446150 HCAPLUS Full-text

DN 137:39094

TI Polymeric fluorescent substance and polymer light-emitting device using the same

IN Doi, Shuji; Tsubata, Yoshiaki; Ueoka, Takahiro
; Sasaki, Shigeru; Noguchi, Takanobu

PA Sumitomo Chemical Company, Limited, Japan

SO Eur. Pat. Appl., 46 pp.

CODEN: EPXXDW

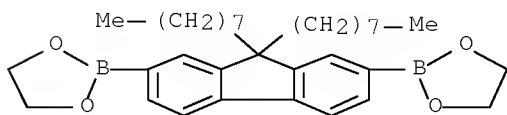
DT Patent

LA English

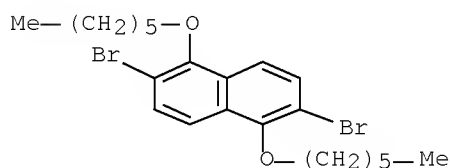
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1213336	A2	20020612	EP 2001-310199	20011205 <--
	EP 1213336	A3	20020904		
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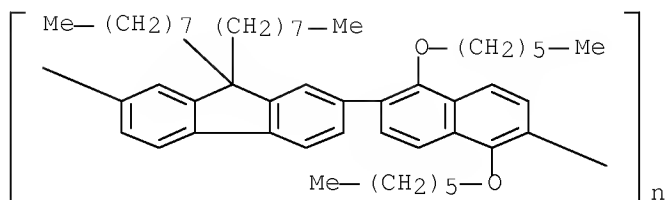
TW 555833 B 20031001 TW 2001-90129374 20011128 <--
 SG 100772 A1 20031226 SG 2001-7376 20011128 <--
 US 20020122899 A1 20020905 US 2001-995814 20011129 <--
 JP 2002356674 A 20021213 JP 2001-372865 20011206 <--
 JP 3922005 B2 20070530
 PRAI JP 2000-371180 A 20001206 <--
 JP 2001-100626 A 20010330 <--
 AB Polymeric fluorescent substances having polystyrene reduced number-average mol. wts. of 1 + 103 to 1 + 108 are described which comprise ≥ 1 repeating units described by the general formula -Ar1-(CR1:CR2)n- and ≥ 1 repeating units described by the general formula -Ar2-(CR3:CR4)n- (Ar1 and Ar2 = different arylene or divalent heterocyclic compound groups; R1-4 = independently selected H, alkyls, aryls, monovalent heterocyclic compound groups, and cyano groups). Electroluminescent devices employing the materials are also described, as are light sources and displays using the devices either as display elements or backlights.
 IT 436862-16-7P 436862-17-8P 436862-42-9P
 436862-43-0P 436862-44-1P 437629-85-1P
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (fluorescent substances based on poly(arylenealkenylenes) and polymer light-emitting devices using them)
 RN 436862-16-7 HCAPLUS
 CN 1,3,2-Dioxaborolane, 2,2'-(9,9-dioctyl-9H-fluorene-2,7-diyl)bis-, polymer with 2,6-dibromo-1,5-bis(hexyloxy)naphthalene (9CI) (CA INDEX NAME)
 CM 1
 CRN 210347-49-2
 CMF C33 H48 B2 O4



CM 2
 CRN 207799-29-9
 CMF C22 H30 Br2 O2



RN 436862-17-8 HCAPLUS
 CN Poly[(9,9-dioctyl-9H-fluorene-2,7-diyl)[1,5-bis(hexyloxy)-2,6-naphthalenediyl]] (9CI) (CA INDEX NAME)



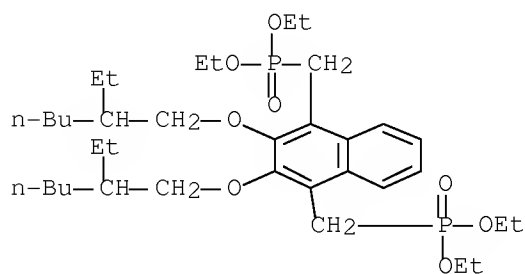
RN 436862-42-9 HCAPLUS

CN Phosphonic acid, [[2,3-bis[(2-ethylhexyl)oxy]-1,4-naphthalenediyl]bis(methylene)]bis-, tetraethyl ester, polymer with 9,9-bis(3,7-dimethyloctyl)-9H-fluorene-2,7-dicarboxaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 436862-34-9

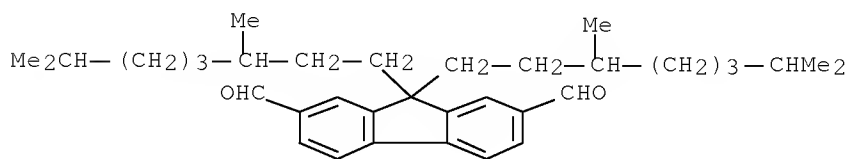
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CM 2

CRN 325461-36-7

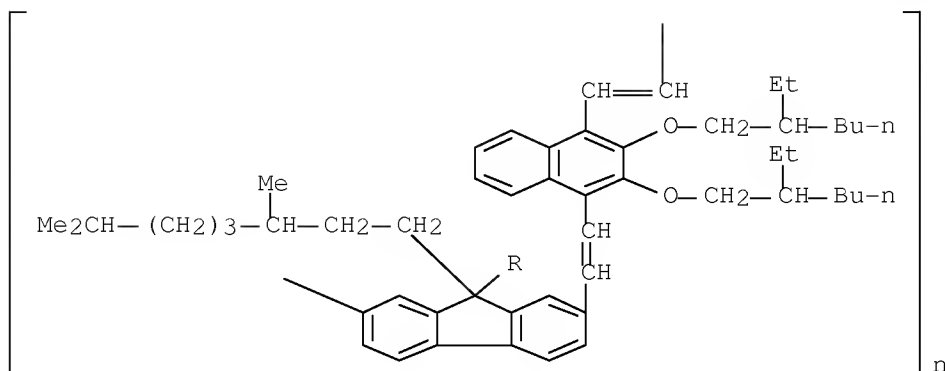
CMF C35 H50 O2



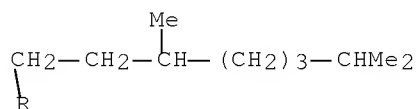
RN 436862-43-0 HCAPLUS

CN Poly[[9,9-bis(3,7-dimethyloctyl)-9H-fluorene-2,7-diyl]-1,2-ethenediyl[2,3-bis[(2-ethylhexyl)oxy]-1,4-naphthalenediyl]-1,2-ethenediyl] (9CI) (CA INDEX NAME)

PAGE 1-A



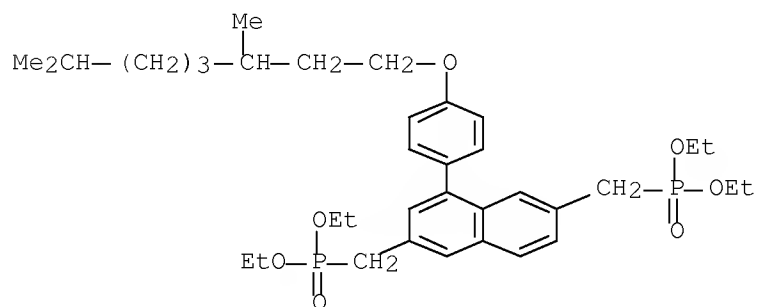
PAGE 2-A



RN 436862-44-1 HCAPLUS
 CN Phosphonic acid, [[4-[4-[(3-7-dimethyloctyl)oxy]phenyl]-2,6-naphthalenediyl]bis(methylene)]bis-, tetraethyl ester, polymer with 9,9-bis(3,7-dimethyloctyl)-9H-fluorene-2,7-dicarboxaldehyde (9CI) (CA INDEX NAME)

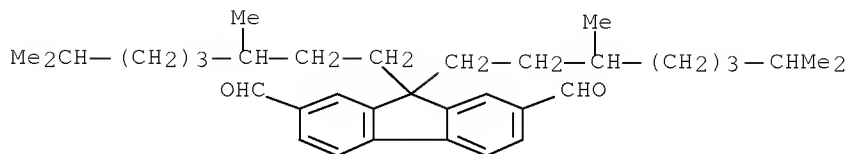
CM 1

CRN 436862-38-3
 CMF C36 H54 O7 P2



CM 2

CRN 325461-36-7
 CMF C35 H50 O2



RN 437629-85-1 HCAPLUS

CN Poly[[9,9-bis(3,7-dimethyloctyl)-9H-fluorene-2,7-diyl]-1,2-ethenediyl[[4-
[(3,7-dimethyloctyl)oxy]phenyl]-2,6-naphthalenediyl]] (9CI) (CA INDEX
NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L74 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2001:404579 HCAPLUS Full-text

DN 135:167387

TI Blue-Light-Emitting Fluorene-Based Polymers with Tunable Electronic
Properties

AU Liu, Bin; Yu, Wang-Lin; Lai, Yee-Hing; Huang, Wei

CS Institute of Materials Research and Engineering (IMRE), National
University of Singapore, Singapore, 117602, Singapore

SO Chemistry of Materials (2001), 13(6), 1984-1991

CODEN: CMATEX; ISSN: 0897-4756

PB American Chemical Society

DT Journal

LA English

AB A series of soluble alternating polyfluorene copolymers with different main chain structures and those of the same main chain structure polyfluorene-co-alt-phenylene with different functional groups attached at the 2- and/or 5-positions of the phenylene ring were synthesized by a palladium-catalyzed Suzuki coupling reaction. All 10 polymers had the band gaps ranging from 2.81 to 3.35 eV, corresponding to blue-light emission. Through controllable modification for both the main chain structures and the side chains, not only the optical and electronic properties of the blue emissive polymers had been tuned, but also the structure-property relationships, especially the HOMO and LUMO energy level engineering, had been studied. Relatively high PL efficiency in both solution and film states, good thermal stability, and relatively high glass transition temps. were demonstrated on these polymers. In general, polymers with the main chain structure of polyfluorene-co-alt-phenylene were found to have higher Φ_{fl} both in solution and in solid states than those copolymers with other main chain structures. For the polymers with the same main chain structure of polyfluorene-co-alt-phenylene, attachment of electron-donating alkoxy groups on phenylene ring had caused a spectral red shift, corresponding to slightly decreased HOMO and increased LUMO energy levels, while attachment of electron-withdrawing ester groups had led to an obvious blue shift in the absorption spectrum with a decrement in both the HOMO and LUMO energy levels as compared to that of the unsubstituted polymer. As for the polymers of different main chain structures, in comparison with poly(9,9-dihexylfluorene), carbazole comonomer had caused an obvious spectral blue shift with increased HOMO and decreased LUMO energy levels. A decrement in both the HOMO and LUMO energy levels had been observed for poly[2,7-(9,9-dihexylfluorene)-co-1,4-naphthalene] in which naphthalene was chosen as the comonomer. However, for poly[2,7-(9,9-dihexylfluorene)-co-2,5-pyridine], although there was no obvious difference between the absorption and emission spectra of poly[2,7-(9,9-dihexylfluorene)-co-2,5-pyridine] as compared to those of poly(9,9-dihexylfluorene), both the HOMO and LUMO energy levels were

reduced greatly when they were compared with those of poly(9,9-dihexylfluorene).

IT 353246-75-0P 353246-76-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of blue-light-emitting fluorene-based polymers with tunable electronic properties)

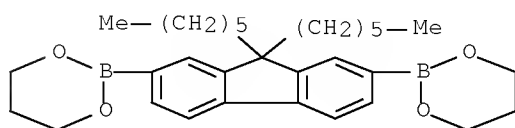
RN 353246-75-0 HCAPLUS

CN 1,3,2-Dioxaborinane, 2,2'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis-, polymer
with 1,4-dibromonaphthalene (9CI) (CA INDEX NAME)

CM 1

CRN 250597-29-6

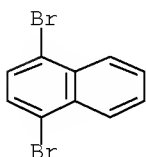
CMF C31 H44 B2 O4



CM 2

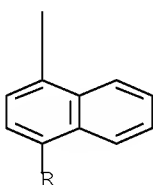
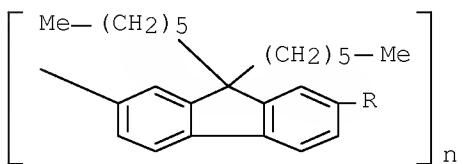
CRN 83-53-4

CMF C10 H6 Br2



RN 353246-76-1 HCAPLUS

CN Poly[(9,9-dihexyl-9H-fluorene-2,7-diyl)-1,4-naphthalenediyl] (9CI) (CA
INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Andersson, M	1999	9	1933	J Mater Chem	HCAPLUS
Andersson, M	1995	28	7525	Macromolecules	HCAPLUS
Bauerle, P	1993		489	J Chem Soc, Perkin T	
Berggren, M	1994	372	444	Nature	HCAPLUS
Braun, D	1991	58	1982	Appl Phys Lett	HCAPLUS
Bredas, J	1995	7	263	Adv Mater	HCAPLUS
Campbell, A	2000	76	1734	Appl Phys Lett	HCAPLUS
Cho, H	1997	9	326	Adv Mater	HCAPLUS
Cimrova, V	1996	8	146	Adv Mater	HCAPLUS
Destri, S	1999	32	353	Macromolecules	HCAPLUS
Friend, R	1999	397	121	Nature	HCAPLUS
Granstrom, M	1996	68	147	Appl Phys Lett	
Greenham, N	1995	49	1	Solid State Phys	HCAPLUS
Grem, G	1992	4	36	Adv Mater	HCAPLUS
Grice, A	1998	73	629	Appl Phys Lett	HCAPLUS
Gruner, J	1994	6	748	Adv Mater	
Hay, M	1995	117	7112	J Am Chem Soc	HCAPLUS
Hird, M	1991	206	205	Mol Cryst Liq Cryst	HCAPLUS
Janietz, S	1998	73	2453	Appl Phys Lett	HCAPLUS
Jiang, X	2000	76	1813	Appl Phys Lett	HCAPLUS
Joshi, H	1999	38	2722	Angew Chem, Int Ed	HCAPLUS
Kido, J	1993	63	2627	Appl Phys Lett	HCAPLUS
Kim, J	1999	74	3084	Appl Phys Lett	HCAPLUS
Klaerner, G	1998	31	2007	Macromolecules	HCAPLUS
Klarner, G	1998	10	993	Adv Mater	
Kraft, A	1998	37	402	Angew Chem, Int Ed	
Kreyenschmidt, H	1998	31	1099	Macromolecules	
Lamba, J	1994	116	11723	J Am Chem Soc	HCAPLUS
Lee, J	1997	88	31	Synth Met	HCAPLUS
Lee, S	1989	22	355	Polym Bull	HCAPLUS
Miyaura, N	1995	95	2457	Chem Rev	HCAPLUS
Moratti, S	1995	71	2117	Synth Met	HCAPLUS
Ohmori, Y	1991	30	L1941	Jpn J Appl Phys	
Pearson, D	1963	28	3147	J Org Chem	HCAPLUS
Pei, Q	1996	118	7416	J Am Chem Soc	HCAPLUS
Ranger, M	1997	30	7686	Macromolecules	HCAPLUS
Ruiz, J	1992	25	849	Macromolecules	HCAPLUS
Sainova, D	2000	76	1810	Appl Phys Lett	HCAPLUS
Segura, J	1998	49	319	Acta Polym	HCAPLUS
Stampfl, J	1995	71	2125	Synth Met	HCAPLUS
Tokito, S	1997	70	1929	Appl Phys Lett	HCAPLUS
Wang, H	1995	36	45	Polym Prepr	HCAPLUS
Xu, B	1993	26	4457	Macromolecules	HCAPLUS
Yu, W	1999	75	3270	Appl Phys Lett	HCAPLUS
Yu, W	1999		1837	Chem Commun	HCAPLUS

L74 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2001:368970 HCAPLUS Full-text

DN 135:181052

TI Synthesis and electroluminescence of poly(aryleneethynylene)s based on fluorene containing hole-transport units

AU Zhan, Xiaowei; Liu, Yunqi; Yu, Gui; Wu, Xia; Zhu, Daoben; Sun, Runguang; Wang, Daike; Epstein, Arthur J.

CS Institute of Chemistry, Center for Molecular Science, Chinese Academy of

Sciences, Beijing, 100080, Peop. Rep. China

SO Journal of Materials Chemistry (2001), 11(6), 1606-1611

CODEN: JMACEP; ISSN: 0959-9428

PB Royal Society of Chemistry

DT Journal

LA English

AB A series of light-emitting poly(arylene ethynylene)s (PAE) based on fluorene with sterically hindered substituents containing hole transport units such as tetraphenyldiaminobiphenyl, carbazole, and thiophene and the non-planar unit binaphthyl, were synthesized by palladium-catalyzed coupling reaction. The introduction of hole transport moieties into the PAE main chain improved the luminance properties of PAE polymers. The electronic structure and photo- and electroluminescent (EL) properties of these polymers can be manipulated by simply varying the nature of the co-units in the polymeric chain. The spectral emission varies from greenish-blue to green or yellowish-green, depending on the composition of the copolymers. A single-layer test device, light-emitting diode (LED) prepared from poly{[2,7-diethynyl-9,9-bis(2-ethylhexyl)fluorene]-alt-[N,N'-diphenyl- N,N'-bis(4-phenyl)-1,1'-biphenyl-4,4'-diamine]} (TPD-PFE) using an aluminum electrode emits green light (510 nm) with an EL external quantum efficiency of 0.007% and a brightness of 30 cd m⁻² at a bias voltage of 27 V and a c.d. of 420 mA cm⁻². An EL external quantum efficiency of 0.06% can be obtained from a blue-emitting double-layer LED with the structure of ITO/TPD-PFE/2-(2-hydroxyphenyl)pyridylberyllium/LiF/AlLi at a c.d. of 38 mA cm⁻².

IT 355804-10-3F 355804-11-4F

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and electroluminescence and redox potential of light-emitting poly(arylene ethynylene)s with diaminobiphenyl and carbazole and thiophene hole transport units)

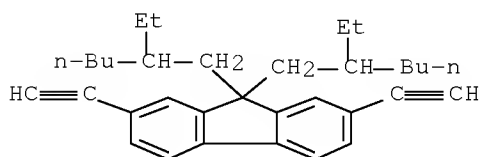
RN 355804-10-3 HCAPLUS

CN 9H-Fluorene, 9,9-bis(2-ethylhexyl)-2,7-diethynyl-, polymer with 6,6'-dibromo-2,2'-bis(hexyloxy)-1,1'-binaphthalene (9CI) (CA INDEX NAME)

CM 1

CRN 344782-47-4

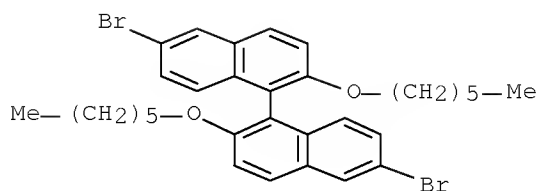
CMF C33 H42



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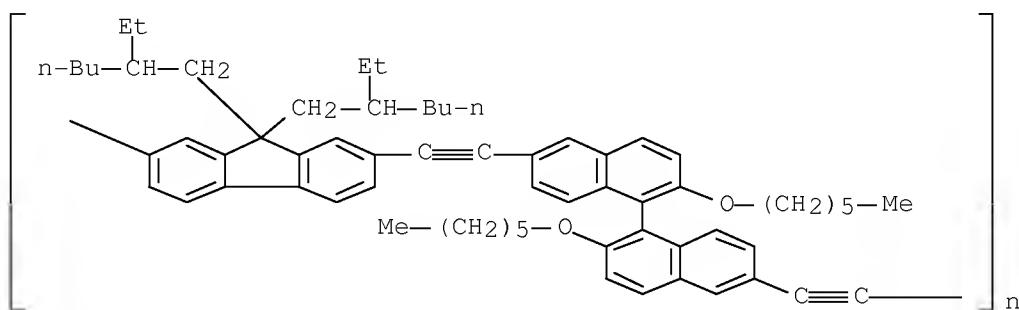
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CMF C32 H36 Br2 O2



RN 355804-11-4 HCAPLUS

CN Poly[[9,9-bis(2-ethylhexyl)-9H-fluorene-2,7-diyl]-1,2-ethynediyl[2,2'-bis(hexyloxy)[1,1'-binaphthalene]-6,6'-diyl]-1,2-ethynediyl] (9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Barker, J	1975	5	59	Synth Commun	HCAPLUS
Beginn, C	1994	195	2353	Macromol Chem Phys	HCAPLUS
Coulson, D	1972	13	121	Inorg Synth	
Davey, A	1995		1433	J Chem Soc, Chem Com	HCAPLUS
Giesa, R	1996	C36	631	J Macromol Sci-Rev M	HCAPLUS
Greenham, N	1994	6	491	Adv Mater	HCAPLUS
He, Y	1999	74	2265	Appl Phys Lett	HCAPLUS
Jenekhe, S	1994	265	765	Science	HCAPLUS
Jiang, X	2000	76	1813	Appl Phys Lett	HCAPLUS
Kim, Y	1997	9	2699	Chem Mater	HCAPLUS
Klaerner, G	1998	31	2007	Macromolecules	HCAPLUS
Kraft, A	1998	37	402	Angew Chem, Int Ed	
Li, Y	2000	12	2672	Chem Mater	HCAPLUS
Liu, B	2000		551	Chem Commun	HCAPLUS
Ma, L	1996	29	5083	Macromolecules	HCAPLUS
Mangel, T	1995	16	571	Macromol Rapid Commu	HCAPLUS
Montali, A	1998	392	261	Nature	HCAPLUS
Montali, A	1998	97	123	Synth Met	HCAPLUS
Ni, Q	1992	49-50	447	Synth Met	
Pang, Y	1998	31	6730	Macromolecules	HCAPLUS
Sainova, D	2000	76	1810	Appl Phys Lett	HCAPLUS
Swager, T	1995	99	4886	J Phys Chem	HCAPLUS
Swanson, L	1993	1910	101	J Soc Photo-Opt Inst	HCAPLUS
Swanson, L	1993	55-57	1	Synth Met	
Weder, C	1996	29	5157	Macromolecules	HCAPLUS
Weder, C	1998	279	835	Science	HCAPLUS
Weinfurtner, K	2000	76	2502	Appl Phys Lett	HCAPLUS

Yamamoto, T	1996	118	10389	J Am Chem Soc	HCAPLUS
Yamamoto, T	1994	27	6620	Macromolecules	HCAPLUS
Yang, Y	1996	118	7416	J Am Chem Soc	
Yoshino, K	1994	33	L1785	Jpn J Appl Phys	HCAPLUS
Yu, W	1999	75	3270	Appl Phys Lett	HCAPLUS
Yu, W	1999	1837		Chem Commun	
Zhan, X				Chem Mater, in the p	
Zhan, X				Synth Met, in the pr	
Zheng, L	2000	12	13	Chem Mater	HCAPLUS

L74 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1998:459759 HCAPLUS Full-text

DN 129:123010

OREF 129:25207a,25210a

TI Process for preparing conjugated polymers

IN Inbasekaran, Michael; Wu, Weishi; Woo, Edmund P.

PA Dow Chemical Co., USA

SO U.S., 9 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5777070	A	19980707	US 1997-956797	19971023 <--
	CA 2305137	A1	19990429	CA 1998-2305137	19980513 <--
	WO 9920675	A1	19990429	WO 1998-US9706	19980513 <--
	W: CA, CN, JP, KR, SG				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1025142	A1	20000809	EP 1998-923397	19980513 <--
	EP 1025142	B1	20030226		
	R: DE, FR, GB, IT, NL, SE, FI				
	JP 2001520289	T	20011030	JP 2000-517007	19980513 <--
	AT 233288	T	20030315	AT 1998-923397	19980513 <--
	TW 412544	B	20001121	TW 1998-87108092	19980525 <--
PRAI	US 1997-956797	A	19971023	<--	
	WO 1998-US9706	W	19980513	<--	

AB A process for preparing conjugated polymers comprises contacting (i) monomers having two reactive groups selected from boronic acid, C1-6 boronic acid ester, C1-6 borane, and combinations thereof, with aromatic dihalide-functional monomers or (ii) monomers having one reactive boronic acid, boronic acid ester, or borane group and one reactive halide-functional group, with each other; (wherein the monomers are selected so that the polymerization reaction product of such has conjugated unsatd. internal groups) in a reaction mixture which contains: (a) an organic solvent in which the polymer forms at least a 1 percent solution; (b) an aqueous solution of an inorg. base having a pKa in the range of from 9 to 13, said solution having a concentration of at least 0.1N; (c) a catalytic amount of a palladium complex; and (d) at least 0.01 mol percent of a phase transfer catalyst, based on the number of moles of boronic acid, boric acid ester, and borane groups in the reaction mixture; under reaction conditions sufficient to form the corresponding conjugated polymer. A polymer was prepared from 2,7-dibromo-9,9-di-n-octylfluorene and 9,9-di-n-octylfluorene-2,7-di(ethyleneboronate) in a reaction mixture containing PhMe, aqueous sodium carbonate, Aliquat 336, and tetrakis(triphenylphosphine)palladium.

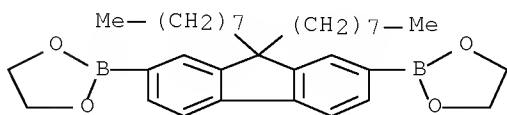
IT 210347-53-8P 210347-54-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(process for preparing conjugated polymers)

RN 210347-53-8 HCAPLUS
 CN 1,3,2-Dioxaborolane, 2,2'-(9,9-dioctyl-9H-fluorene-2,7-diyl)bis-, polymer
 with 1,4-dibromonaphthalene (CA INDEX NAME)

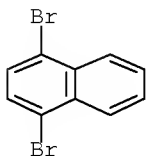
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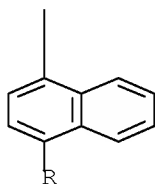
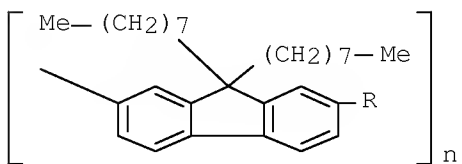


CM 2

CRN 83-53-4
 CMF C10 H6 Br2



RN 210347-54-9 HCAPLUS
 CN Poly[(9,9-dioctyl-9H-fluorene-2,7-diyl)-1,4-naphthalenediyl] (CA INDEX
 NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
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Burrows, P	1994	64	2718	Appl Phys Lett	HCAPLUS
Cho, H	1997	9	326	Adv Mater	HCAPLUS
Hamada, Y	1993		905	Chemistry Letters	HCAPLUS
Hamada, Y	1992	7	83	Optoelectronics	HCAPLUS
Ishikura, M	1984		936	Synthesis	HCAPLUS
Kido, J	1996		47	Chemistry Letters	HCAPLUS
Kim, J	1997	38	169	Polymer Bulletin	HCAPLUS
Li, X	1995		2211	J Chem Soc, Chem Com	HCAPLUS
March, J	1992		320	Adv Org Chem, 3r	
Miller, R	1997	38	421	Polymer Preprints	HCAPLUS
Miyaura, N	1995	95	2457	Chem Rev	HCAPLUS
Miyaura, N	1981	11	513	Synthetic Communicat	HCAPLUS
O'Brien, D	1996	76	105	Synthetic Metals	
Sandman, D	1994	2	44	Trends in Polymer Sc	HCAPLUS
Scherf, U	1991	12	489	Makromol Chem, Rapid	HCAPLUS
Strukelj, M	1995	267	1969	Science	HCAPLUS
Wallow, T	1994	59	5034	J Org Chem	HCAPLUS
Wallow, T	1993	34	1009	Polymer Preprints	HCAPLUS
Woo, E	1996			US 08606180	
Woo, E	1996			US 08696280	
Wu, W	1996			US 08696281	

=> d his

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 E SUMITOM/CO
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 E SUMITOMO C/CO
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 L28 1 S L25 AND C63H82O
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 L49 2 S L46 AND C20H12BR2
 L50 4 S L47-L49
 L51 183 S L45 NOT L46
 L52 11 S L51 NOT C5-C6-C6/ES
 L53 172 S L51 NOT L52
 L54 111 S L53 NOT C6-C6/ES
 L55 61 S L53 NOT L54
 L56 1 S L55 AND "(C29H38.C10H6BR2.C10H6BR2)X"/MF
 L57 22 S L31,L41,L50,L56
 SAV TEMP L57 MARIE995D/A

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L68 3 S L66,L67
L69 3 S L58 AND PY<=2001 NOT P/DT
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SEL RN

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